

**Amendments to the Claims:**

This listing of claims will replace all prior versions,  
and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (previously presented) A method for  
removing nitrate from nitrate-contaminated water  
comprising treating said water in a hydrogen-fed  
bioreactor with autotrophic, hydrogen-oxidizing  
denitrifying bacteria.

Claim 2 (original) The method according to  
claim 1 wherein the bacteria are purple, non-sulfur  
phototrophic bacteria.

Claim 3 (previously presented) The method  
according to claim 11 wherein the hydrogen is produced by  
electrolysis of water.

Claim 4 (original) The method according to  
claim 1 wherein the bacteria have been isolated from  
nitrate-containing groundwater.

Claims 5-8 (canceled)

Claim 9 (previously presented) The method according to claim 1 wherein the bacteria use nitrate as a respiratory terminal electron acceptor whereby nitrate is converted to nitrogen gas.

Claim 10 (previously presented) The method according to claim 1 wherein the bacteria belong to the *Proteobacteria* of the domain Bacteria.

Claim 11 (currently amended) The method according to claim 1 comprising generating hydrogen gas by a method selected from the group consisting of corrosive oxidation of iron, biological fermentation, or electrolysis.

Claim 12 (previously presented) The method according to claim 1 wherein the bacteria are supported on a solid surface to support biofilm formation by the bacteria.

Claim 13 (previously presented) The method according to claim 12 wherein after the water has been treated by the bacteria on a solid support, the water is percolated through a sand filtration unit.

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Claim 14 (previously presented) The method  
according to claim 1 wherein the nitrate-contaminated  
water is drinking water.